

164609

PHYSICAL CONSTANTS DATA

Substance		Structural Formula
ANILINE		NH ₂ 
Compiled by	Date	
S. McWilliams	4/71	
Name		Reference
Appearance	Colorless to Pale Yellow, Oily Liquid	15
Molecular Weight	93.12	1
Formula	C ₆ H ₇ N	1
Boiling Point at 760 mm Hg	184.4°C	1
Melting Point	-6.2°C	1
Flash Point	70°C	1
Ignition Temperature	371°C	15
Critical Temperature	425.8°C	4
Critical Pressure	768.6 psia	4
Critical Volume	4.39 cu.ft./lb.-mole	4
Index of Refraction at 20°C	1.5863	1
Heat of Vaporization at 183°C	103.68 Cal/gm	2
Heat of Fusion at -7.03°C	21.0 Cal/gm	1
Heat of Combustion at 25°C	810.55 Kcal/mole	15
Heat of Formation at 25°C	7340 Cal/g-mole	16
Solubility in Water at 20°C	3.4 gm/100 ml	1
Solubility in Water at 90°C	6.4 gm/100 ml	1
Solubility in Alcohol and Ether	Very Soluble	1
Specific Gravity at 20°C	1.022	2
Density at 20°C lbs./gal.	8.51	
(See Figure 5)		
Specific Heat at 20°C	0.508	
(See Figure 6)		
Surface Tension at 10°C	44.1 dynes/cm	1
Thermal Conductivity at 20°C	0.10 BTU/hr-ft-°F	2
Vapor Pressure at 100°C	44 mm Hg	?
(See Figure 7)		
Viscosity at 20°C	4.2 cp	2
(See Figure 8)		

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